

Fusion of Hurricane Models and Observations: Developing the Technology to Improve the Forecasts

Completed Technology Project (2012 - 2015)



Project Introduction

Develop the technology to provide the fusion of observations and operational model simulations to help improve the understanding and forecasting of hurricane processes. Specifically:

Develop processing techniques to enable multi-source data fusion across hurricane forecast models, satellite data, and in situ sensors.

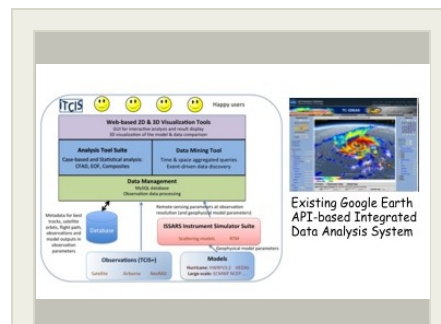
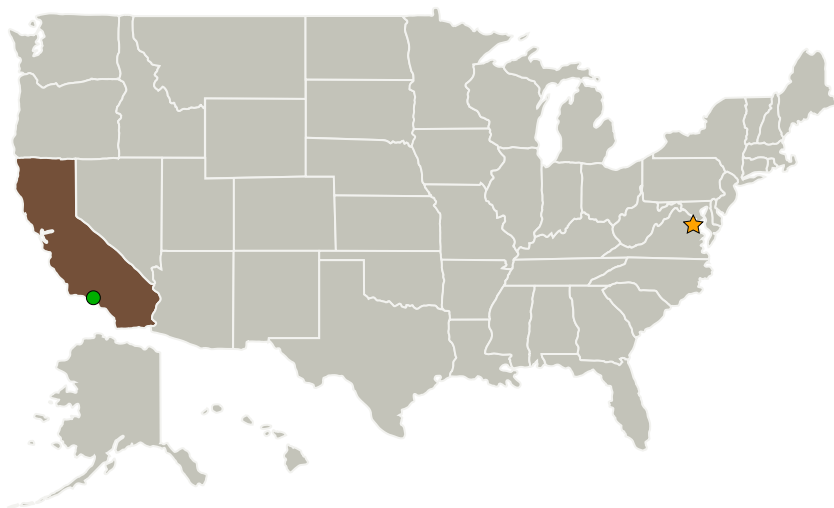
Develop tools to manage the validation and assessment of model comparisons to more easily evaluate the performance of different numerical models.

Develop interactive visualization techniques to enable analysis of highly complex systems.

Anticipated Benefits

SWOT

Primary U.S. Work Locations and Key Partners



Project Image Fusion of Hurricane Models and Observations: Developing the Technology to Improve the Forecasts

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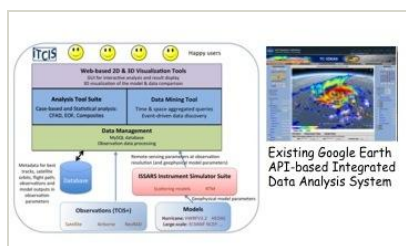


Organizations Performing Work	Role	Type	Location
★ NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
● Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations

California

Images



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Project Image Fusion of Hurricane Models and Observations: Developing the Technology to Improve the Forecasts
(<https://techport.nasa.gov/image/1631>)

Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

Project Management

Program Director:

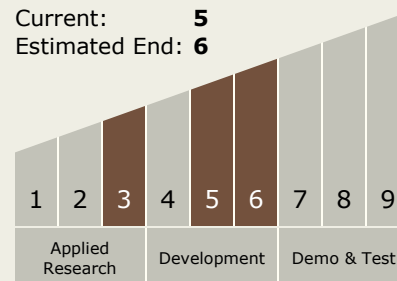
George J Komar

Principal Investigator:

Svetla M Hristova-veleva

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **6**



Technology Areas

Primary:

Continued on following page.

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Technology Areas (cont.)

- TX11 Software, Modeling, Simulation, and Information Processing
 - └ TX11.4 Information Processing
 - └ TX11.4.1 Science, Engineering, and Mission Data Lifecycle

Target Destination

Earth